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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/550,933

08/23/2006

Peter Rumpel

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09/08/2009

SCHIFF HARDIN, LLP
PATENT DEPARTMENT
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EXAMINER

YI, ROY Y

ART UNIT

PAPER NUMBER

2852

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/550,933	Applicant(s) RUMPEL ET AL.	
	Examiner ROY YI	Art Unit 2852	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08/23/2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 31-61 is/are pending in the application.
- 4a) Of the above claim(s) 1-30 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 31-61 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 September 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

The drawings submitted on 09/28/2005 are acceptable.

Claim Objections

Claim 36 objected to because of the following informalities: "...belt, and third cylindrical body, are ... ". Appropriate correction is required.

Claim 46 objected to because of the following informalities: "...third cylindrical body **boy** being ... ". Appropriate correction is required.

Claim 51 objected to because of the following informalities: "...the carrier element at **at** least one point ... ". Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Art Unit: 2852

Claim 31-42 and **46-57** rejected under 35 U.S.C. 102(b) as being anticipated by Yamazaki et al. (US PGPub 2003/0138267 A1).

As to **Claim 33**, Yamazaki et al. teach a method in which at least one of the cylindrical bodies protrudes at its ends over a width of the endless belt, and ends of the at least one cylindrical body uncovered by the endless belt are supported in supports provided in the container (Figure 8).

As to **Claim 35**, Yamazaki et al. teach in which at least one of the supports is formed by a frame in which are arranged the ends of the cylindrical bodies uncovered by the endless belt (Figure 8).

As to **Claim 36**, Yamazaki et al. teach the frame is dimensioned so narrow that a wound unit formed from the first and second cylindrical bodies and the endless belt, and the third cylindrical body, are held together (Paragraph 46).

As to **Claim 38**, Yamazaki et al. teach the wound unit unrolls on a round support surface upon unwinding of the endless belt (Figure 5).

As to **Claim 39**, Yamazaki et al. teach the third cylindrical body is extracted from the frame through an opening in the frame (Figure 8).

As to **Claim 42**, Yamazaki et al. teach upon closing of the cover, the web is inserted between two of the cylindrical bodies in a region of the ends uncovered by the endless belt (Figure 8).

As to **Claim 31** and **46**, Yamazaki et al. teach an endless belt handling system unit, comprising: an endless belt and a holder system; the holder system comprising a first, a second and a third cylindrical body for bearing the endless belt (Figure 1c); the

Art Unit: 2852

first cylindrical body being inserted through a loop of the endless belt (Figure 1D, item A); the second cylindrical body being arranged outside of the loop of the endless belt and parallel to the first cylindrical body (Figure 1D, item C); the endless belt being wound around the first and the second cylindrical bodies (Figure 1E); the third cylindrical body being inserted through the loop at a free end of the endless belt wound around the first and the second cylindrical bodies (Figure 1F, item B); a container in which the cylindrical bodies are housed with the wound endless belt, at least one of the cylindrical bodies protruding at its ends over a width of the endless belt, and the ends of the at least one cylindrical body that are uncovered by the endless belt resting on supports provided in the container (Figure 8); at least one of the supports being formed by a frame in which are arranged the ends of the cylindrical bodies uncovered by the endless belt (Figure 8); and the frame having an opening through which the third cylindrical body is extractable. The claimed method set forth is met by the structure of Yamazaki et al.

As to **Claim 32** and **47**, Yamazaki et al. teach the endless belt is wound around the first and the second cylindrical bodies so often that the third cylindrical body rests on a wound unit formed from the first cylindrical body, the second cylindrical body, and the endless belt wound around them (Figure 1D). The claimed method set forth is met by the structure of Yamazaki et al.

Art Unit: 2852

As to **Claim 34** and **48**, Yamazaki et al. teach at least one of the supports has a round support surface (Figure 8). The claimed method set forth is met by the structure of Yamazaki et al.

As to **Claim 49**, Yamazaki et al. teach the frame is dimensioned such that it holds the wound unit and the third cylindrical body together (Figure 8).

As to **Claim 37** and **50**, Yamazaki et al. teach the frame is formed by a recess in a carrier element that has a substantially circular segment that forms a round support surface (Figure 6). The claimed method set forth is met by the structure of Yamazaki et al.

As to **Claim 51**, Yamazaki et al. teach the opening is formed such that the recess in the carrier element extends until an edge of the carrier element at at least one point (Figure 4).

As to **Claim 52**, Yamazaki et al. teach a seal is provided with which the opening is sealed such that none of the cylindrical bodies can leave the frame via the opening (Figure 8).

As to **Claim 40** and **53**, Yamazaki et al. the seal is formed by a web that is shaped on a cover of the container and that, given a closed cover, protrudes into the

Art Unit: 2852

opening (Figure 8). The claimed method set forth is met by the structure of Yamazaki et al.

As to **Claim 41** and **54**, Yamazaki et al. teach a closed cover, the web protrudes between two of the cylindrical bodies in a region of the ends uncovered by the endless belt (Figure 8).

As to **Claim 55**, Yamazaki et al. teach the third cylindrical body is optically identified. It is possible to identify the third cylindrical body with an ordinary human eye.

As to **Claim 56**, Yamazaki et al. teach the cylindrical bodies are formed by cardboard tubes (Paragraph 11). Cardboard is a type of paper product.

As to **Claim 57**, Yamazaki et al. teach the endless belt comprises a photoconductor belt for an electrophotographic printer or copier (Paragraph 20).

As to **Claim 61**, Yamazaki et al. teach method for handling of an endless belt for an electrophotographic printer or copier, comprising the steps of: bearing an endless belt with aid of a first, a second, and a third cylindrical body (Figure 1D); inserting the first cylindrical body through a loop of the endless belt (Figure 1B); arranging the second cylindrical body outside of the loop of the endless belt and parallel to the first cylindrical body (Figure 1 D, item C); winding the endless belt around the first and

Art Unit: 2852

second cylindrical bodies (Figure 1E); providing the third cylindrical body through the loop at a free end of the endless belt; and housing the cylindrical bodies with the wound endless belt in a container (Figure 7).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 43-45 and 58-60 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamazaki et al. (US PGPub 2003/0138267 A1) as applied to Claim 31 and further in view of Swain (US 6,366,750).

As to **Claim 43**, Yamazaki et al. does not teach the cylindrical bodies are formed as tubes that are mounted on mounts of the printer or copier after an extraction of the endless belt from the container, and in which the endless belt is slid across the tubes into the printer or copier. Swain teaches that are mounts of the printer or copier after an extraction of the endless belt from the container, and in which the endless belt is slid across the tubes into the printer or copier (Column 3, lines 53-67).

It would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to modify the packaging structure and method taught by Yamazaki et al. with the mounting system taught by Swain. One would be motivated to make the

Art Unit: 2852

modification to make the replacement of photoconductive belt easier and to make the image forming apparatus more cost effective.

As to **Claim 44**, Yamazaki et al. does not teach the mounts are arranged on the printer or copier such that, upon mounting of the tubes, the endless belt looped around the tubes assumes a shape that it has in the printer or copier. Swain teaches the mounts are arranged on the printer or copier such that, upon mounting of the tubes, the endless belt looped around the tubes assumes a shape that it has in the printer or copier. (Column 4, lines 53-67).

It would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to modify the packaging structure and method taught by Yamazaki et al. with the mounting system taught by Swain. The shape of the belt is dictated by the location of the mandrels taught by Swain. It would be obvious since the Swain is directed towards an image forming apparatus that the mandrels will have a shape corresponding to an image forming apparatus. One would be motivated to make the modification to reduce the amount of possible deflecting in the belt so as to increase printing quality.

As to **Claim 45**, Yamazaki et al. teach third tube is mounted on an uppermost mount with the endless belt suspended from it, said endless belt being weighted down by the first tube lying in its loop, the first tube being mounted on a lowermost mount; and

Art Unit: 2852

the second tube being directed through the loop of the endless belt and is mounted on a middle mount (Figure 1D).

As to **Claim 58**, Yamazaki et al. teach an electrophotographic printer or copier (Paragraph 35); an endless belt that is insertable into the printer or copier and a holder system for the endless belt (Figure 8); said holder system comprising a first, a second, and a third cylindrical body for bearing the endless belt (Figure 1, item A, B, C); an endless belt handling system comprising said endless belt and said holder system (Figure 7); said cylindrical bodies comprising tubes (Figure 1D); the first cylindrical body being inserted through a loop of the endless belt (Figure 1 D, item A); the second cylindrical body being arranged outside of the loop of the endless belt and parallel to the first cylindrical body (Figure 1D, item C); the endless belt being wound around the first and second cylindrical bodies (Figure 1E); the third cylindrical body being inserted through the loop at a free end of the endless belt wound around the first and the second cylindrical bodies (Figure 1F, item B); a container in which the cylindrical bodies are housed with the wound endless belt (Figure 8), at least one of the cylindrical bodies protruding at its ends over a width of the endless belt, and the ends of the at least one cylindrical body that are uncovered by the endless belt resting on supports provided in the container (Figure 8); Yamazaki et al. do not teach the printer or copier having mounts in which the tubes are mountable, the mounts being arranged such that, upon removal of the tubes and endless belt from the container, upon mounting of the tubes

Art Unit: 2852

on the mounts, the endless belt looped around the tubes assumes a shape it has in the printer or copier.

Swain teaches that are mounts of the printer or copier after an extraction of the endless belt from the container, and in which the endless belt is slid across the tubes into the printer or copier (Column 3, lines 53-67).

It would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to modify the packaging structure and method taught by Yamazaki et al. with the mounting system taught by Swain. One would be motivated to make the modification to make the replacement of photoconductive belt easier and to make the image forming apparatus more cost effective.

As to **Claim 59**, Yamazaki et al. teach the mounts are formed by mounting spikes (Figure 1D, item A, B, C).

As to **Claim 60**, A Yamazaki et al. teach an association of a tube with a mount is optically identified. It is possible to identify the third cylindrical body with an ordinary human eye which can optically identify.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ROY YI whose telephone number is (571)270-7804. The examiner can normally be reached on Monday through Friday, 8 am to 5:00 pm.

Art Unit: 2852

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Gray can be reached on 571-272-2119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/David M Gray/
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Art Unit 2852

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